

REMARKS

A. Correction of Amendment

On October 22, 2002, Applicant filed an Amendment where two paragraphs of the Specification were amended. Unfortunately, the Amendment identified each of the two paragraphs as being located at page 10, line 3. This identification was correct for the second amended paragraph. The first amended paragraph is located at page 7, line 23. If not already done so, please amend the Specification with this correction in mind.

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B. Objections to Drawings

In the Office Action mailed on January 14, 2003, the drawings were objected to because reference signs 236C, 236R,L and 238R,L were missing from the drawings.

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Applicant has amended the specification so that item 236C has been replaced by 238C, 236R,L have been replaced by 246R,L and 238R,L have been replaced by 248R,L. Since reference signs 238C, 246R,L and 248R,L are shown in the drawings, the objection has been overcome and should be withdrawn.

15 On a related matter, Applicant notes that the Office Action has objected to Applicant's Proposed Amendment to Drawings filed on October 22, 2002. Since the Proposed Amendment to Drawings and the present amendments to the Specification overcome the objections noted in the Office Actions mailed on May 22, 2002 and January 14, 2003, Applicant requests that the objection to the Proposed Amendment to

Drawings be withdrawn and the amendments entered.

C. **35 U.S.C. §103**

Claims 24-47 were rejected under 35 U.S.C. § 103 as being obvious in view of the ENC-150 Encoder Mounting Instructions (hereinafter “AcuRite Manual”) and Nygren.

5 Applicant has canceled claims 24 and 36 and so their rejections have been rendered moot. Regarding the rejection of the remaining claims, Applicant has amended claims 33 and 45 so as to incorporate the contents of claims 24 and 36, respectively. Claims 33 and 45 each recite a method that includes attaching a template to a reading head bracket, which is attached to a machine tool, subsequent to positioning the template. It is noted that the

10 Office Action has conceded that the AcuRite Manual does not disclose such attaching. In order to overcome the deficiencies of the AcuRite Manual, the Office Action has asserted that Nygren discloses a method of mounting that involves a template and that it would have been obvious to attach Nygren’s template to the reading head bracket disclosed in the AcuRite Manual.

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Applicant traverses the above-described rejection for several reasons. First, Nygren is directed to nonanalogous art, which is improper under 35 U.S.C. § 103. The test for nonanalogous art is as follows:

5 The determination that a reference is from nonanalogous art
is therefore two-fold. First, we decide if the reference is
within the field of the inventor's endeavor. If it is not, we
proceed to determine whether the reference is reasonably
pertinent to the particular problem with which the inventor
was involved. In re Deminski, 796 F.2d 436, 230 U.S.P.Q.
10 313 (Fed. Cir. 1986) citing In re Wood, 559 F.2d 1032,
 1036, 202 U.S.P.Q. 171, 174 (C.C.P.A. 1979).

Upon applying the first prong of the test, one sees that Nygren is not within the
15 Applicant's field of endeavor. Applicant's claimed invention is in the field of methods of
mounting a position measuring device to a machine tool. In contrast, Nygren does not
relate in any way to methods of mounting a positioning measuring device to a machine
tool. Instead, Nygren is directed to an apparatus for marking a structural member, such
as wall plates or sill plates, the correct position for interconnecting structural building
20 members, such as studs, joists, rafters, trusses and rough door opening trimmer studs.
(Col. 2, ll. 13-18). Since there is no mention in Nygren of mounting a position measuring
device to a machine tool, Nygren is not within Applicant's field of endeavor.

Besides not being within the Applicant's field of endeavor, it is clear that Nygren
is not reasonably pertinent to the particular problem with which the Applicant was

involved. As stated on pages 3 and 4 of Applicant's specification, the problem of multiple attachments and removals of linear encoders and their components to mark and form holes are a concern of Applicant's claimed invention. It is clear that Nygren does not address Applicant's problem. In particular, Nygren concerns the problems

5 encountered by marking building materials using either a tape measure and/or carpenter's square. (Col. 1, ll. 7-68). Such marking involves generating lines around templates that are attached to a guide member 1. (Col. 3, ll. 16-24). Thus, Nygren fails the second prong of the test. Accordingly, it is respectfully submitted that a person having ordinary skill in the art of designing improved methods for mounting a position measuring device

10 to a machine tool would not, without other suggestion, turn to the completely non-analogous device of Nygren used for building materials. For this reason alone it is felt that the argued combination is inappropriate and that claims 25-35 and 37-47 should be allowed.

Even should Nygren be deemed analogous art, it is respectfully submitted that the

15 combination of the AcuRite Manual and Nygren under § 103 is improper, because of a lack of motivation to do so. Independent claims 33 and 45 each recite a mounting process where a template is attached to a reading head bracket, where the reading head bracket is attached to a machine tool. The Office Action has conceded that the AcuRite Manual does not disclose using a template. Nygren does not cure the deficiencies of the

AcuRite Manual since there is no suggestion to attach any one of Nygren's rectangular templates 2, 3 to the reading head bracket disclosed in the AcuRite Manual. Indeed, the templates 2, 3 would perform no discernable function if so attached. The Office Action recognizes this by asserting that, based on FIG. 2, the guide member 1 is a template that

5 has holes that are used to mark holes. This assertion is incorrect. Nygren is quite clear that no holes are marked and that instead the pencil 18 draws an outline around a template 3. (Col. 1, ll. 16-24). The holes 5-10 are used to attach templates 2, 3 at various positions along the guide member 1 and are not used mark positions of holes. (Col. 3, l. 62 – Col. 3, l. 53). This is further evidenced by FIG. 1, where there is no surface behind

10 guide member 1 that could receive a marking generated by inserting the pencil through one of the holes. Indeed, the only surfaces to receive markings are wall plates 17, but they lie below the holes and so marking of the plates 17 via the holes is impossible. (See FIGS. 1-2). Since the holes 5-10 are not used for marking, the guide member 1 itself is not used as a template in the manner suggested by the Office Action. Accordingly, the

15 rejection has no merit and so should be withdrawn.

It should be noted that even if there was prior art indicating that a template for mounting a position measuring device to a machine tool was known. There still has been no showing that one of ordinary skill in the art would be motivated to attach such a template to the reading head bracket described in the AcuRite Manual. Without such

motivation, the claims should be allowed.

As noted above, claims 33 and 45 have been amended so as to incorporate the contents of claims 24 and 36, respectively. Since those contents were inherently present in original claims 33 and 45, the present amendments being made regarding claims 33
5 and 45 are not related to patentability as defined in *Festo Corporation v. Shoketsu Kinzoku Kogyo Kabushiki Co., Ltd*, 234 F.3d 558, 56 USPQ2d 1865 (Fed. Cir. 2000) (*en banc*), *overruled in part*, 535 U.S. 722, 122 S. Ct. 1831 (2002).

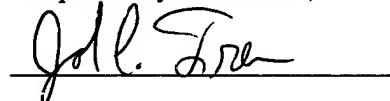
Regarding claims 25-30 and 37-42, they have been amended to depend on either claim 33 or claim 45 so as to provide additional coverage for methods of mounting a position measuring device. Claims 26, 28, 30 and 42 have been further amended to clarify the identity of the recited “attaching” or “reading head bracket” in view of the dependence on claims 33 or 45. Thus, the amendments of claims 25-30 and 37-42 are not being presented for reasons of patentability as defined in *Festo*.

Regarding the amendment of claim 42 it has been amended to use language that is
15 consistent with language used in other claims. Since the replacement of “the” with “said” does not change the intended scope or meaning of the claim, the amendment is not being presented for reasons of patentability as defined in *Festo*.

CONCLUSION

In view of the arguments above, Applicant respectfully submits that all of the pending claims 25-35 and 37-47 are in condition for allowance and seeks an early allowance thereof. If for any reason, the Examiner is unable to allow the application in the 5 next Office Action and believes that an interview would be helpful to resolve any remaining issues, she is respectfully requested to contact the undersigned attorneys at (312) 321-4200.

Respectfully submitted,



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Marked Up Version of Amended Specification

As shown in FIGS. 15 and 16, the extension guide 240 includes lower holes 246 and upper holes 248. The holes 246L and 248L located to the left of a plane P that is a perpendicular bisector of the extension guide 240 are mirror images of the holes 246R and 248R located to the right of the plane P. The first set of lower holes 246 that have an orientation with respect to each other that corresponds to the orientation and spacing of mounting holes of the position measuring device, such as a linear encoder. Adjacent ones of the holes [236L] 246L and [236R] 246R are separated from one another by a constant distance, such as 1". In those cases where the position measuring device is inserted into a spar, the extension guide 240 also includes a second set of upper holes 248 that have an orientation with respect to each other that corresponds to the orientation and spacing of mounting holes of spars that can be used in conjunction with the linear encoder.

Adjacent ones of the holes [238L] 248L and [238R] 248R are separated from one another by a constant distance, such as 5". Note that in the case of the central opening and the holes 246 and 248, they each have a longitudinal axis that extends perpendicular to the longitudinal direction of the extension guide 240. In addition, markings or indicia may be placed adjacent the holes 246 and 248 so that a user may readily identify which of the holes correspond with particular linear encoder or spar mounting holes.

Regarding the second situation where no extension guide 240 is attached to the base, if the linear encoder or spar has a length that is greater than the length of the longitudinal body 206, then the center hole 238C of the base 202 is positioned at the center of travel and is marked. The base 202 is removed and the marked position is

5 transfer punched. Next, the machine is moved in one direction in n number of 1"

increments to find one of the mounting locations for a linear encoder that is the nth linear encoder longer than the linear encoder represented by the holes 236B. For example, if it is desired to mount a linear encoder that has mounting holes that are separated from one another by a distance that is 4" greater than the separation distance between holes 236B,

10 then the machine is moved 2" to the right of the punched position and the hole [236C] 238C of the base 202 is aligned with the punched position that moved with the machine.

Next, the hole 236B to the right of hole [236C] 238C is marked. The base 202 is removed and the marked position is transfer punched. Next, the machine is moved to the left so as to end up 2" to the left of the punched position of the center of travel. The hole

15 236B to the left of hole [236C] 238C is marked. The base 202 is removed and the mark position is transfer punched. Holes are then drilled at the three punched positions and mounting holes of the linear encoder are aligned with the drilled holes so that the linear encoder can be attached via screws inserted into the aligned holes.

Attachment of longer spars is done in a similar manner after the center of travel position has been marked and punched. For example, if it is desired to mount a spar that has a length that is 10" longer than the linear encoder mounted by holes 238A, then the machine is moved 5" to the right of the punched position and the hole 238A of the base

- 5 202 is aligned with the punched position that moved with the machine. Next, the hole 238A to the right of hole [236C] 238C is marked. The base 202 is removed and the marked position is transfer punched. Next, the machine is moved to the left so as to end 5" to the left of the punched position of the center of travel. The hole 236B to the left of hole 238A is marked. The base 202 is removed and the mark position is transfer punched.
- 10 Holes are then drilled at the three punched positions and mounting holes of the spar are aligned with the drilled holes so that the spar can be attached via screws inserted into the aligned holes.

Marked Up Version of Amended Claims

25. (Amended) The method of claim [24] 33, wherein said position measuring device comprises a linear encoder.

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26. (Amended) The method of claim [24] 33, wherein said attaching said position measuring device comprises inserting screws into said aligned mounting holes of said position measuring device and said holes formed in said machine tool.

10 27. (Amended) The method of claim [24] 33, wherein said template is not a linear encoder.

28. (Amended) The method of claim [24] 33, wherein said machine tool does not move along an axis of travel from the time of positioning to said time of attaching
15 said position measuring device.

29. (Amended) The method of claim [24] 33, wherein said template is supported on said machine tool during said positioning.

30. (Amended) The method of claim [24] 33, comprising attaching said position measuring device to [a] said reading head bracket prior to said positioning.

31. (Amended) The method of claim 30, comprising:
5 positioning said reading head bracket against said machine tool; and
marking mounting holes of said reading head bracket on [the] said machine tool.

33. (Amended) A method of mounting a position measuring device to a machine tool, comprising:
positioning a template adjacent to said machine tool, wherein said template comprises a plurality of holes that correspond to mounting holes of a position measuring device and said template is distinct from said position measuring device;
forming holes in said machine tool based on positions of said plurality of holes;
10 aligning said mounting holes of said position measuring device with said holes formed in said machine tool;
attaching said position measuring device to said machine tool; and
[The method of claim 32, further comprising:]
15 attaching said template to [said] a reading head bracket, which is attached to said

machine tool, subsequent to said positioning of said template.

37. (Amended) The method of claim [36] 45, wherein said position measuring device comprises a linear encoder.

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38. (Amended) The method of claim [36] 45, wherein said attaching of said spar comprises inserting screws into said aligned mounting holes of said position measuring device and said holes formed in said machine tool.

10 39. (Amended) The method of claim [36] 45, wherein said template is not a linear encoder.

40. (Amended) The method of claim [36] 45, wherein said machine tool does not move along an axis of travel from the time of positioning to said time of attaching
15. said spar.

41. (Amended) The method of claim [36] 45, wherein said template is supported on said machine tool during said positioning.

[The method of claim 44, further comprising:]
attaching said template to [said] a reading head bracket, which is attached to said
machine tool, subsequent to said positioning of said template.

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